



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/561,538

12/19/2005

Takashi Fujita

053362

9367

38834

7590

09/30/2009

WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP
1250 CONNECTICUT AVENUE, NW
SUITE 700
WASHINGTON, DC 20036

EXAMINER

XU, XIAOYUN

ART UNIT

PAPER NUMBER

1797

NOTIFICATION DATE

DELIVERY MODE

09/30/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentmail@whda.com

Office Action Summary	Application No. 10/561,538	Applicant(s) FUJITA ET AL.	
	Examiner ROBERT XU	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4,5,7-13 and 15-20 is/are pending in the application.
- 4a) Of the above claim(s) 8-13,15,18 and 19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4, 5, 7, 16, 17, and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The amendment and RCE filed on 08/27/2009 has been entered and fully considered. Claims 2, 3, 6 and 14 are canceled. Claims 1, 4, 5, 7-13 and 15-20 are pending, of which Claims 1, 4, 5, 16 and 17 are amended, Claims 8-13, 15, 18 and 19 are withdrawn as non-elected claims. Thus Claims 1, 4, 5, 7, 16, 17, and 20 are considered on merit.

Response to Amendment

2. In response to amendment, the examiner modifies rejection over the prior art established in the previous Office action.

Claim Rejections – 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. **Claims 1, 4, 5, 7, 16 and 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over McCaffrey et al. (US 2001/0038450) (McCaffrey) in view of Ryoji (Engineering Materials, 1999).

In regard to Claims 1 and 7, McCaffrey teaches determining amount of ATP by detecting ATP-luciferase chemi-luminescence (see paragraph [0004]). McCaffrey teaches that the photo-detecting transducers used for detecting luminescence are very sensitive to static charge; for instance, static charges seen when a sample consumable is inserted into the sample chamber (compartment) (see col. 2, paragraph [0015]). McCaffrey further teaches that conventionally, a sample chamber (compartment) of known devices must be made of a conductive material or some other means must be provide to remove static charge from the sample chamber (see paragraph [0015]). McCaffrey does not specifically teach what “some other means” are.

Ryoji teaches static elimination materials that can be used to eliminate static in the air (see title). At time of the invention, it would have been obvious to ordinary skill in the art to use static elimination materials to remove static electricity in the air as taught by Ryoji before the air enters McCaffrey’s sample chamber, because McCaffrey teaches

Art Unit: 1797

the detecting luminescence are very sensitive to static charge and other means must be provide to remove the static charges.

In regard to Claims 4, 5 and 16, Ryoji teaches prevention of product troubles by static electricity failure, removal of static electricity by using materials having a static elimination effect (see abstract). At time of the invention, it would have been obvious to one of ordinary skill in the art to remove static electricity by materials having a static elimination effect as taught by Ryoji in McCaffrey's measurement chamber so that the static inside the chamber can be removed.

In regard to Claim 20, McCaffrey teaches calibration of the instrument (see paragraph [0052]). McCaffrey in view of Ryoji does not specifically teach using a calibration curve showing a relationship between a concentration of the objective compound and a measured value which is previously obtained by measuring a standard solution containing a known amount of the objective component. However, using a calibration curve based on a known amount of the compound is well known in the art, at the time of the invention it would have been obvious to one of ordinary skill in the art to use a calibration curve showing a relationship between a concentration of the objective compound and a measured value which is previously obtained by measuring a standard solution containing a known amount of the objective component.

5. **Claim 17** is rejected under 35 U.S.C. 103(a) as being unpatentable over McCaffrey in view of Ryoji as applied to Claims 1-5, 7, 14, 16 and 20 above, and further in view of Rapp et al. (US Patent 6,602,464) (Rapp) and Mitoma (US Patent 6,144,448)

In regard to Claim 17, McCaffrey in view of Ryoji does not teach shutting an opening part of the reaction vessel with a sheet or a method for covering the surface of the solution in the reaction vessel with a substance insoluble to the solution. Oil layer has been used to seal the surface of aqueous solution in the art, because oil is insoluble to water and oil is lighter than water. For example, Rapp teaches using oil layer to seal the surface of surface of liquid animal waste (see Col. 2, lines 33-39). At time of the invention it would have been obvious to ordinary skill in the art to use oil layer to seal the surface of solution in the reaction vessel as taught by Rapp, in order to prevent the electrostatic charge from interfering with the measurement, because McCaffrey teaches

Art Unit: 1797

that some other means must be provide to remove static charge from the sample chamber (see paragraph [0015]).

Sealing an opening part of the reaction vessel with a sheet or cap to prevent the solution inside the vessel from contacting outside is well known in the art. For example, Mitoma teaches measuring fluorescence of a sample sealed in a vessel (7) (see Figure 2). At the time of the invention it would have been obvious to ordinary skill in the art to seal the opening of the vessel with sheet or cap in order to prevent the solution inside the vessel from evaporating as taught by Mitoma.

Response to Arguments

6. Applicant's arguments filed 08/27/2009 have been fully considered but they are not persuasive.

Applicant's notion that anti-static tape inside the measurement chamber provides unexpected result over grounding as shown in Table 4 in the instant specification is acknowledged. However, it seems obvious in view of Ryoji's teaching. Ryoji teaches that the electrostatic elimination material is used in integrated circuit manufacturing process, to persistently eliminate electrostatic in the parts or air in the process (see page 3 of the translation). Therefore the power of the electrostatic elimination material must be superior to merely grounding the integrated circuit. Ryoji also teaches using electrostatic elimination material in air cleaner, to persistently eliminate electrostatic in the air cleaner (see page 3 of the translation). Therefore the power of the electrostatic elimination material must be superior to merely grounding the air cleaner.

In response to the argument of making an atmosphere surrounding a reaction vessel or surrounding the reaction vessel in the photometry chamber electrically constant by using a material having a static electricity elimination effect, Ryoji seems provide the right material for that purpose. The material as taught by Ryoji eliminates electrostatic on parts or air.

Applicant argues that "it is known that resin easily charges with electricity. Novalloy E disclosed in Ryoji is made of ABS resin. Therefore, one of ordinary skill in the art would not use Novalloy E which is made of resin as a material of photometry

Art Unit: 1797

chamber in McCaffrey.” Examiner believes that not all resins are the same. Special resin can have special properties. Novalloy E disclosed in Ryoji made of ABS resins has the property of persistently eliminating electrostatic effect. Therefore,

Applicants argue that Rapp discloses treating agriculture animal waste to minimize odorous emissions. The treatment includes the use of oil and activated carbon applied to the surface of liquid animal waste. Thus, the Applicants argue that the art of treating agricultural waste is not reasonably pertinent to the art of the present invention. The applicant is advised that the rationale to modify or combine the prior art does not have to be expressly stated in the prior art; the rationale may be expressly or impliedly contained in the prior art or it may be reasoned from knowledge generally available to one of ordinary skill in the art, established scientific principles, or legal precedent established by prior case law. (See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992)). Sealing aqueous surface with oil film is knowledge generally available to one of ordinary skill in the art as demonstrated by Rapp.

Applicants argue that “it is not well known in the art to shut an open part of the reaction vessel when the luminescence is measured, and the Office Action has not provided an evidence to demonstrate that this feature is well known”. The examiner has fulfilled the obligation by finding the relevant reference (Mitoma) and used it in this Office action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT XU whose telephone number is (571)270-5560. The examiner can normally be reached on Mon-Thur 7:30am-5:00pm, Fri 7:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Vickie Kim can be reached on (571)272-0579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1797

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

9/25/2009

/Yelena G. Gakh/
Primary Examiner, Art Unit 1797

RX